

What is claimed is:

1. An image processing device, comprising:  
a color coordinate conversion device which converts  
5 color coordinates of a color signal which has been obtained  
by color separation; and  
a two dimensional look up table which is used for  
correcting a chromaticity signal which has been obtained by  
color coordinate conversion by said color coordinate  
10 conversion device.
2. An image processing device according to Claim 1,  
wherein said two dimensional look up table, along with being  
used for correcting said chromaticity signal, also is used  
15 to output a luminance correction amount based upon said  
chromaticity signal.
3. An image processing device according to Claim 1,  
wherein said color coordinate conversion device converts  
20 color coordinates of a color signal by matrix calculation.
4. An image processing device, comprising:  
a first matrix calculation device which converts a  
color signal which has been obtained by color separation into  
25 a luminance signal;

a second matrix calculation device which converts said color signal into a chromaticity signal;

a two dimensional look up table which is used for correcting said chromaticity signal which has been converted by said second matrix calculation device, and outputs a luminance correction amount based upon said chromaticity signal; and

a luminance correction device which corrects said  
luminance signal which has been converted by said first matrix  
10 calculation device by said luminance correction amount which  
is outputted based upon said two dimensional look up table.

5. An image processing method, comprising:

a color coordinate conversion process which converts  
15 color coordinates of a color signal which has been obtained  
by color separation; and

a two dimensional look up table process which uses a two dimensional look up table to correct a chromaticity signal which has been obtained by color coordinate conversion by said color coordinate conversion process.

6. A computer-readable computer program product containing an image processing program, the image processing program comprising:

25           a color coordinate conversion instruction which

converts color coordinates of a color signal which has been obtained by color separation; and

a two dimensional look up table instruction which uses a two dimensional look up table to correct a chromaticity  
5 signal which has been obtained by color coordinate conversion by said color coordinate conversion instruction.

7. A computer-readable computer program product according to Claim 6, wherein the computer-readable computer program  
10 product is a recording medium on which the image processing program is recorded.

8. A computer-readable computer program product according to Claim 6, wherein the computer-readable computer program  
15 product is a carrier wave in which the image processing program is embodied as a data signal.

9. An image processing method for converting a first color coordinates indicated by a first color signal, a second color  
20 signal and a third color signal into a second color coordinates indicated by a fourth color signal, a fifth color signal and a sixth color signal, comprising:

calculating the fourth color signal using the first color signal through the third color signal;

25 calculating the fifth color signal using the first

color signal through the third color signal;

calculating the sixth color signal using the first  
color signal through the third color signal;

reading out correction values for the fourth color  
5 signal, the fifth color signal and the sixth color signal  
based upon the calculated fifth signal and sixth signal from  
a storage device where the correction values for the fourth  
color signal, the fifth color signal and the sixth color  
signal are stored and can be read out based upon the calculated  
10 fifth signal and sixth signal; and

correcting the calculated fourth color signal, the  
calculated fifth color signal and the calculated sixth color  
signal based upon the correction values for the fourth color  
signal, the fifth color signal and the sixth color signal read  
15 out from the storage device.

10. An image processing method according to Claim 9,  
wherein the storage device has a two dimensional look up  
table.

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11. An image processing method according to Claim 9,  
wherein:

the first color coordinates is indicated by a color  
signal R, a color signal G and a color signal B;

25 the second color coordinates is indicated by a

luminance signal Y and color difference signals Cb and Cr;  
and

the fifth signal corresponds to the color difference  
signal Cb and the sixth color signal corresponds to the color  
5 difference signal Cr.

12. A computer-readable computer program product  
containing an image processing program, the image processing  
program comprising:

10 an instruction of calculating the fourth color signal  
using the first color signal through the third color signal;  
an instruction of calculating the fifth color signal  
using the first color signal through the third color signal;  
an instruction of calculating the sixth color signal  
15 using the first color signal through the third color signal;  
an instruction of reading out correction values for the  
fourth color signal, the fifth color signal and the sixth  
color signal based upon the calculated fifth signal and sixth  
signal from a storage device where the correction values for  
20 the fourth color signal, the fifth color signal and the sixth  
color signal are stored and can be read out based upon the  
calculated fifth signal and sixth signal; and  
an instruction of correcting the calculated fourth  
color signal, the calculated fifth color signal and the  
25 calculated sixth color signal based upon the correction

values for the fourth color signal, the fifth color signal  
and the sixth color signal read out from the storage device.

13. A computer-readable computer program product according  
5 to Claim 12, wherein the computer-readable computer program  
product is a recording medium on which the image processing  
program is recorded.

14. A computer-readable computer program product according  
10 to Claim 12, wherein the computer-readable computer program  
product is a carrier wave in which the image processing  
program is embodied as a data signal.